

WHAT IS CLAIMED IS:

1. A geotextile/polymer composite comprising:
one or more geotextiles substantially soaked with an aqueous polymer
composition comprising,
5 an aqueously dispersed organic polymer having a solid content of
about 10 to about 70 % by weight, and
optionally viscosity adjusting additives, coalescing solvents,
surfactants, crosslinking agents, pigments, fillers, and other
additives.
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2. A liner for irrigation canals and ditches comprising the
composite according to Claim 1.
3. The composite according to Claim 1, wherein the aqueous
15 polymer composition has a solid content of about 30 to about 50 % by
weight.
4. The composite according to Claim 1, wherein the aqueous
polymer composition forms continuous polymer films at temperatures
20 between about 2°C and about 50°C upon evaporation of water.
5. The composite according to Claim 1, wherein the aqueous
polymer composition forms continuous polymer films with an elongation of
at least about 5 % and a tensile strength of at least about 200 psi.
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6. The composite according to Claim 1, wherein the water
absorption of the polymer is less than about 10 % by weight.
7. The composite according to Claim 1, wherein the water
30 absorption of the polymer is less than about 5 % by weight.

8. The composite according to Claim 1, wherein the one or more geotextiles includes at least one thicker, more sponge-like geotextile.

5 9. The composite according to Claim 1, wherein the one or more geotextiles are soaked with sufficient aqueous polymer composition such that the amount of polymer present in the composite ranges from about 1 kg to about 20 kg of polymer per square meter of geotextile.

10 10. The composite according to Claim 1 in which one or more geotextiles are soaked with sufficient aqueous polymer composition that the amount of polymer present in the composite ranges from 2 kg to 5 kg of polymer per square meter of geotextile.

15 11. The composite according to Claim 1 having a thickness of from about 40 microns to about 500 microns.

12. A process of forming a geotextile/polymer composite comprising the steps of:
soaking substantially one or more geotextiles with an aqueous polymer
20 composition comprising,
an aqueously dispersed organic polymer having a solid content of about 10 to about 70 % by weight, and
optionally viscosity adjusting additives, coalescing solvents, surfactants, crosslinking agents, pigments, fillers, and other
25 additives;
conforming the substantially aqueous polymer soaked one or more geotextiles to a surface; and
evaporating water to form a geotextile reinforced polymer composite.

30 13. A liner for irrigation canals and ditches made by the process according to Claim 12.

14. The process according to Claim 12, wherein the aqueous polymer composition has a solid content of about 30 to about 50% by weight.

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15. The process according to Claim 12, wherein the aqueous polymer composition forms continuous polymer films at temperatures between about 2°C and about 50°C upon evaporation of the water.

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16. The process according to Claim 12, wherein the aqueous polymer composition forms continuous polymer films with an elongation of at least about 5 % and a tensile strength of at least about 200 psi.

17. The process according to Claim 12, wherein the one or more geotextiles includes at least one thicker, more sponge-like geotextile.

18. The process according to Claim 12, wherein the one or more geotextiles are soaked with sufficient aqueous polymer composition such that the amount of polymer present in the composite ranges from about 0.2 kg to about 20 kg of polymer per square meter of geotextile.

19. The process according to Claim 12, wherein the one or more geotextiles are soaked with sufficient aqueous polymer composition such that the amount of polymer present in the composite ranges from about 0.5 kg to about 5 kg of polymer per square meter of geotextile.

20. In a process of lining canals and ditches, the improvement comprising including the composite according to Claim 1.

21. In a process of lining canals and ditches, the improvement comprising including the composite made by the process according to Claim 12.